Environmental Equity Program: External Action 2004

Community and Environmental Planning and
Office of Sustainability and Environment

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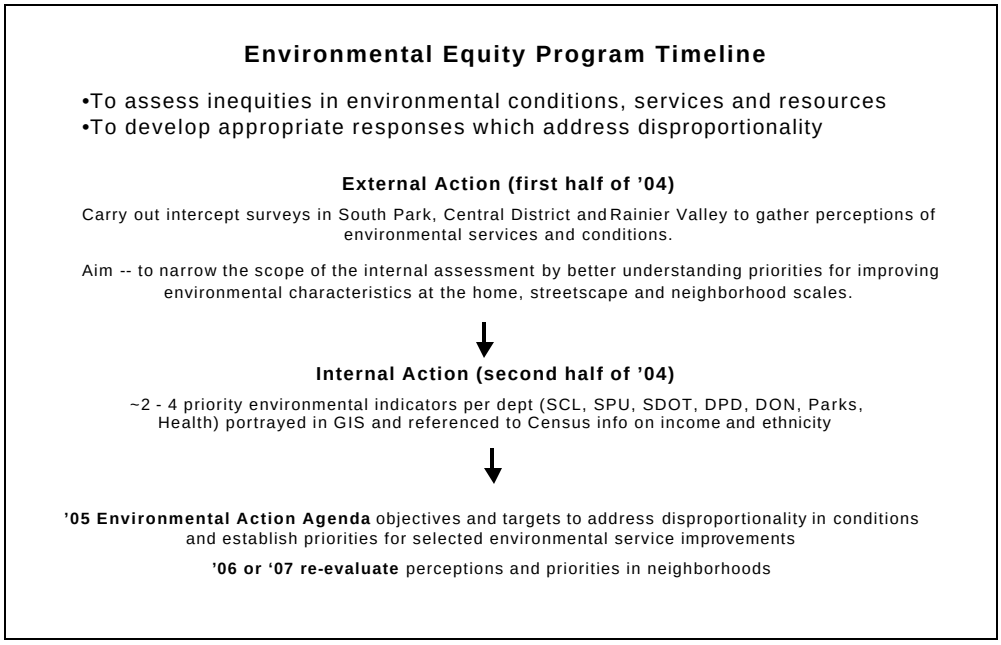
Introduction:

In order to address possible environmental inequities existing within Seattle, the Office of Sustainability and Environment (OSE) has developed an Environmental Equity Program, as illustrated in the diagram below. By beginning with an external examination of Seattle's neighborhoods, OSE will then be able to successfully understand the departmental and Census data available internally. This ongoing two-step process will address inequity issues within city services by informing the Mayor's Environmental Action Agenda.



As a group of twelve students from the Community and Environmental Planning (CEP) major at the University of Washington, we have been working with OSE to carry out the External Action stage of the Program. With the presumption that environmental inequality is a problem most directly affecting historically underserved and minority communities in the city, we chose to focus our resources on the South Park, Rainier Valley, and Central District neighborhoods in Seattle. Through the use of surveys, we set out to understand how individuals in these three communities' value city services and how they might be better served by them.

Methods:

Study areas were chosen within each neighborhood by selecting a series of block groups (from the 2000 census), which encompassed neighborhood service centers, community centers, grocery stores, bus stops, and major intersections. Each block group was examined by the population size, income, race, gender, and age to insure that it was representative of the low-income/minority population that we were targeting and also representative of the three neighborhoods. The survey asked a series of demographic questions to evaluate whether the demographics of the people we surveyed were similar to the demographics of the people within the study areas.

Surveys were conducted between April 1st 2004, and May 9th 2004, Monday through Saturday in groups of two. Each area was surveyed three times per week at varying times per day. The first phase of surveying was conducted at the neighborhood service centers in order to reach the high volumes of the population that use this service at the beginning of each month. The second phase of the surveying was conducted via "store intercept." We used the areas identified within the block groups to survey a cross section of the community at various days and times during the week. All participants were required to live within the neighborhood, and to be over the age of 18. In addition, to supplement our response rate, we attended a few community meetings to obtain surveys.

By choosing the method of store intercept we knew that our response rate would be lower; with this in mind, we limited the survey questions to a single page. This meant that to get importance ratings from individuals we had to ask them to circle the most important questions and sections from the survey. We knew that this would cause a weakness in our accuracy of responses but willingly sacrificed this for a higher response rate to meet the 95% confidence interval for our data.

Our survey target was obtained from Table 7-2 of "Quantitative Methods for Public Administration Third Edition," by Welch and Comer. The table provided a target number of approximately 370 surveys for a population of about 10,000 to reach a confidence interval of

95%. This methodology was used so that we could draw conclusions about our survey population to the population of the study areas as a whole. When we totaled the populations from each block group we got a population of 9,561, which allowed us to approach this target.

Demographic Results:

The demographic information below was obtained from the 2000 Census; we used block group data to extract information about age, race, and sex and compared this with the demographic information we collected from the surveys. These charts illustrate the comparison between the census information and our survey results.

AGE							
	Rainier Valley		Central District		South Park		Aggregate Survey %
	Census %	Survey %	Census %	Survey %	Census %	Survey %	
18-29	21%	18%	30%	23%	29.3%	30.4%	24%
30-44	33%	46%	35.7%	32%	34%	39.1%	39%
45-59	25.5%	28%	19.8%	32%	23%	16.3%	26%
60+	18%	7%	13.2%	12%	13.7%	8.7%	9%

RACE							
	Rainier Valley		Central District		South Park		Aggregate Survey %
	Census %	Survey %	Census %	Survey %	Census %	Survey %	
White	32.1%	32%	26.2%	23%	40.4%	59.8%	42%
Black	31.5%	27%	43.7%	59%	7%	8.7%	33%
Am. Indian	0.4%	1%	0.1%	1%	3.1%	1.1%	1%
Asian	27.5%	14%	10.4%	6%	8.5%	1.1%	6%
Pac. Is.	0.12%	1%	0%	0%	1.4%	0%	0%
Hispanic	8.5%	7%	19.6%	7%	34.5%	30%	14%

SEX							
	Rainier Valley		Central District		South Park		Aggregate Survey %
	Census %	Survey %	Census %	Survey %	Census %	Survey %	
Male	49.3%	50%	48%	60%	53.4%	60.9%	57%
Female	57%	50%	52%	40%	46.6%	38%	43%

Overall we got a representative sample of the population. In Rainier Valley in eight out of the twelve categories we were within 5% of the actual demographic percentages of the population. For the Central District six out of twelve were within 5%. South Park had seven out of the twelve categories within 5%. Perhaps more importantly the Hispanic population, that our Spanish survey targeted, was one of these five.

The areas that were more than five percent off in matching the population's demographics were:

- Rainier Valley:
  - Asian, Female, and 60+ age group were under-sampled.
  - 30-44 age group was over-sampled.
- Central District:
  - Hispanics, 18-29 age group, and females were under-sampled.
  - Black, Male, and 45-59 age group were over-sampled.
- South Park:
  - Asian, Female, and 45-59 age group were under-sampled.
  - White and Male were over-sampled.

Results from scorecards:

Cross-neighborhood trends:

- In each neighborhood there was a trend to score questions 'OK' or 'Good'; in Rainier Valley 60% of respondents answered to 15 of the 18 questions this way. The same percentage was true for Central District on 12 of the 18 questions, and in South Park for 7 of the 18.
- All three communities surveyed prioritized the Neighborhood scale over the Street and Housing scales: 41.3% in Rainer Valley, 34.3% in the Central District, and 48.9% in South Park.

Scorecard Key (For scorecard results on pages 5, 7, 9, & 11)		
Section Key	Topic Key	Rating Scale Key
Red text indicates section prioritized with the greatest frequency.	Red text indicates topic(s) prioritized with the greatest frequency.	Red Numbers indicate the ratings that received the highest response level for each topic.
(XX.X%): percentage of people who prioritized the section.	(XX%): percentage of people who prioritized the given topic.	

Aggregated Neighborhoods Results:

Numbers are based on percentage of responses

		TOPIC	Bad	OK	Good	Great	Doesn't apply
Section 1 *Neighborhood*	1	Convenience to a grocery store	10.2	31.6	30.9	25	0.0
	2	Convenience to parks/open space	9.9	23.7	33.9	30.3	1.0
	3	Convenience of Metro Transit	3.3	16.8	35.2	40.1	3.0
	4	Convenience of health care facilities	8.6	24.7	34.5	23.0	5.6
	5	Public safety	19.7	37.5	27.3	12.2	1.0
	6	Protection from pollution	30.3	32.6	26.0	4.6	3.0
	7	Response to property vandalism	26.6	34.9	20.4	4.9	10.2

			Bad	OK	Good	Great	Doesn't apply
Section 2 ***Streets***	9	Presence of street lighting	10.2	34.5	41.1	11.2	2.0
	10	Presence of street trees	11.5	32.3	40.1	11.2	2.0
	11	Presence of pedestrian crosswalks	15.1	28.6	37.2	13.2	2.6
	12	Quality of street pavement	29.9	31.3	27.6	7.6	1.0
	13	Quality and availability of sidewalks	14.1	36.2	33.2	11.2	1.3
	14	Availability of on-street parking	28.6	29.3	28.6	7.2	3.9
	15	Control of street flooding	17.4	30.3	32.9	10.5	5.3
	16	Control of traffic speeds	27.6	30.9	29.6	7.8	1.3

			Bad	OK	Good	Great	Doesn't apply
Section 3 ***Housing***	18	Drinking water quality	16.1	36.2	31.6	10.5	3.3
	19	Control of excessive noise	24.0	40.1	25.0	6.6	1.3
	20	Ventilation and air quality in your home	13.5	31.3	37.8	11.2	3.3

Neighborhood scale results according to priorities:

- All three neighborhoods prioritized 'Public safety' the most: 19% in Rainier Valley, 20% in the Central District, and 20% in South Park.
- Other Neighborhood scale priorities varied between the three areas:

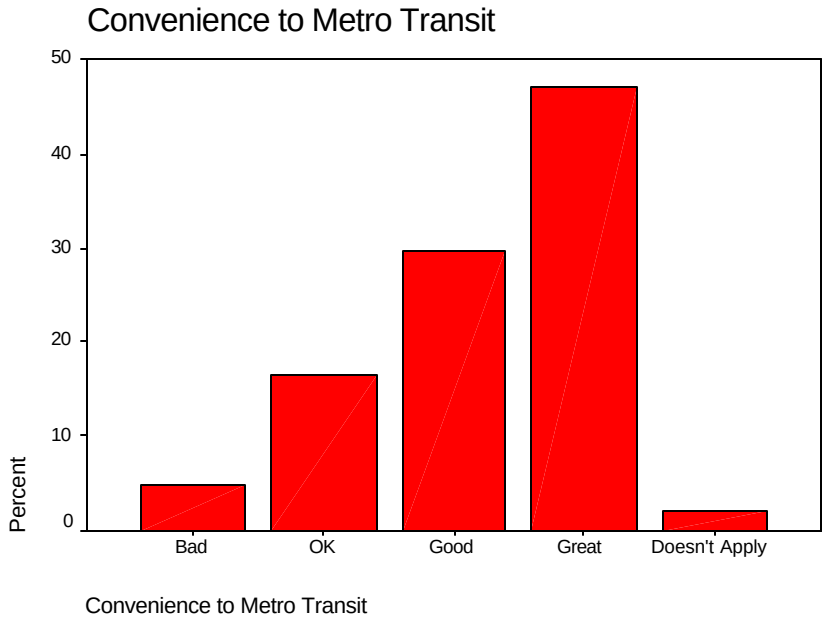
  Rainer Valley: Parks/Open Spaces (10%) and Metro Transit (10%)

  Central District: Health Care Facilities (12%)

  South Park: Protection from Pollution (13%)

Neighborhood scale results according to perceptions:

- Rainier Valley (in the graph below) rated the convenience to grocery stores, parks/open space, and Metro Transit 'Great' (33.7%, 42.3%, and 47.1% respectively), whereas the other neighborhoods rated them in the 'OK' or 'Good' categories.



- Over 55% of those surveyed in both South Park and the Central District rated Public safety as predominantly 'Bad' or 'OK'.
- Similarly, in all three neighborhoods 'Response to property vandalism' was rated as 'Bad' or 'OK' by approximately 55% of those surveyed.
- Over 65% of respondents in South Park rated 'Protection from pollution' as 'Bad' or 'OK', and over 55% saw this attribute as 'Bad' or 'OK' in the other two neighborhoods.

SECTION #1, NEIGHBORHOOD RESULTS

		TOPIC	Bad	OK	Good	Great	Doesn't apply
Neighborhood: *Rainier Valley* *(41.3%)*	1	Convenience to a grocery store (6%)	7.7	24	30.8	33.7	3.8
	2	Convenience to parks/open space (10%)	8.7	15.4	30.8	42.3	1.0
	3	Convenience of Metro Transit (10%)	4.8	16.3	29.8	47.1	1.9
	4	Convenience of health care facilities (5%)	7.7	25.0	40.4	17.3	6.7
	5	Public safety (19%)	12.5	36.5	35.6	13.5	1.0
	6	Protection from pollution (4%)	20.2	39.4	31.7	4.8	2.9
	7	Response to property vandalism (6%)	17.3	38.5	23.1	3.8	15.4

		TOPIC	Bad	OK	Good	Great	Doesn't apply
Neighborhood: *Central District* *(34.3%)*	1	Convenience to a grocery store (5%)	5.6	33.3	31.5	26.9	0
	2	Convenience to parks/open space (6%)	5.6	23.1	39.8	29.6	0
	3	Convenience of Metro Transit (8%)	2.8	14.8	38.0	38.0	2.8
	4	Convenience of health care facilities (12%)	8.3	21.3	37.0	24.1	3.7
	5	Public safety (20%)	13.9	42.6	26.9	13.0	.9
	6	Protection from pollution (8%)	25.9	34.3	22.2	6.5	4.6
	7	Response to property vandalism (10%)	26.9	30.6	22.2	7.4	7.4

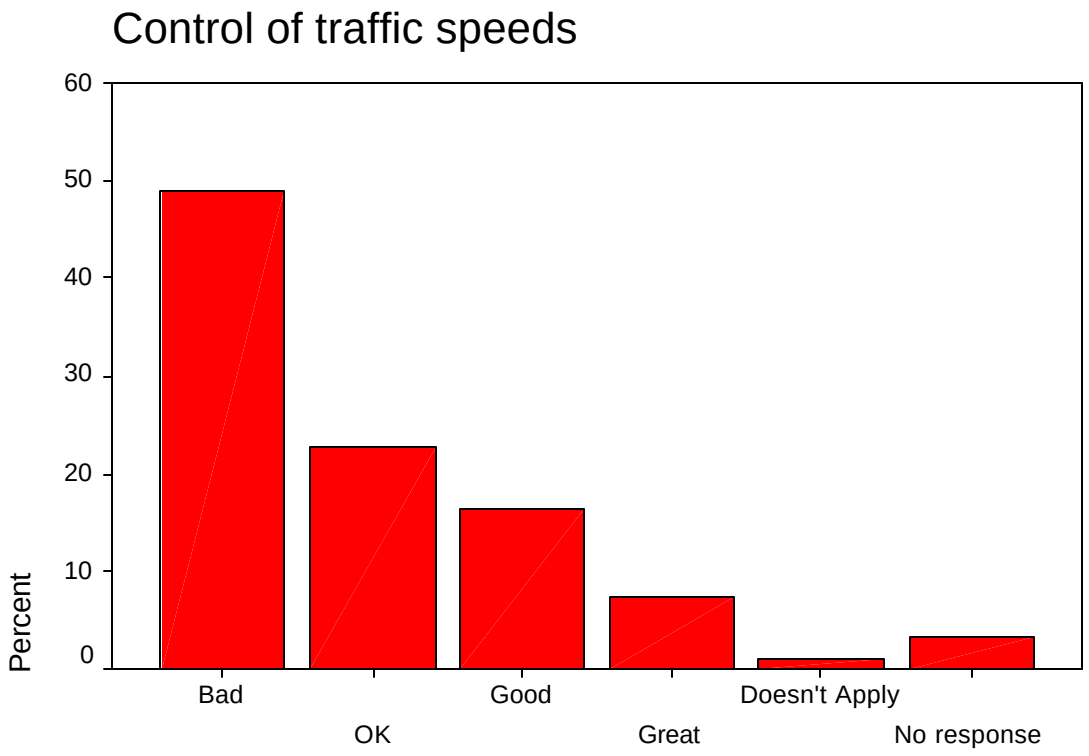
		TOPIC	Bad	OK	Good	Great	Doesn't apply
Neighborhood: *South Park* *(48.9%)*	1	Convenience to a grocery store (6%)	18.5	38.0	30.4	13.0	0
	2	Convenience to parks/open space (7%)	16.3	33.7	30.4	17.4	0
	3	Convenience of Metro Transit (5%)	2.2	19.6	38.0	34.8	3.3
	4	Convenience of health care facilities (6%)	9.8	28.3	25.0	28.3	6.5
	5	Public safety (20%)	34.8	32.6	18.5	9.8	1.1
	6	Protection from pollution (13%)	46.7	22.8	23.9	2.2	1.1
	7	Response to property vandalism (10%)	37.0	35.9	15.2	3.3	7.6

Street scale results according to priorities:

- All three neighborhoods prioritized 'Presence of street lighting': 11% in Rainier Valley, 12% in the Central District, and 11% in South Park.
- Both the Central District (12%) and South Park (21%) prioritized 'Control of traffic speeds.
- 'Quality and availability of sidewalks' was prioritized at 10% by Rainier Valley.
- 'Availability of on-street parking' was prioritized at 12% by Central District.

Street scale results according to perceptions:

- Over 55% of those surveyed in both the Central District and South Park rated both 'Quality of street pavement' and 'Availability of on street parking' as 'Bad' or 'OK', whereas more than 60% rated these attributes as 'OK' to 'Good' in Rainier Valley.
- Almost 50% of respondents in South Park rated 'Control of traffic speeds' as 'Bad', as shown in the graph below:



Control of traffic speeds

SECTION #2, STREET RESULTS

			Bad	OK	Good	Great	Doesn't apply
Streets: Rainier Valley (14.4%)	9	Presence of street lighting (11%)	9.6	36.5	42.3	8.7	1.9
	10	Presence of street trees (10%)	11.5	30.8	44.2	9.6	1.9
	11	Presence of pedestrian crosswalks (8%)	12.5	25.0	47.1	11.5	1.9
	12	Quality of street pavement (8%)	25	34.6	26.9	9.6	1.0
	13	Quality and availability of sidewalks (10%)	20.2	33.7	30.8	9.6	1.9
	14	Availability of on-street parking (5%)	21.2	28.8	35.6	6.7	6.7
	15	Control of street flooding (1%)	16.3	26.0	42.3	13.5	1.9
	16	Control of traffic speeds (9%)	22.1	34.6	32.7	6.7	1.9

			Bad	OK	Good	Great	Doesn't apply
Streets: Central District (11.1%)	9	Presence of street lighting (12%)	12.0	30.6	41.7	13.9	.9
	10	Presence of street trees (6%)	9.3	34.3	38.9	13.9	1.9
	11	Presence of pedestrian crosswalks (11%)	15.7	31.5	35.2	13.9	1.9
	12	Quality of street pavement (9%)	32.4	28.7	27.8	8.3	2.8
	13	Quality and availability of sidewalks (6%)	9.3	37.0	34.3	14.8	1.9
	14	Availability of on-street parking (12%)	33.3	30.6	23.1	8.3	3.7
	15	Control of street flooding (1%)	10.2	35.2	31.5	11.1	8.3
	16	Control of traffic speeds (12%)	14.8	34.3	38.0	7.4	.9

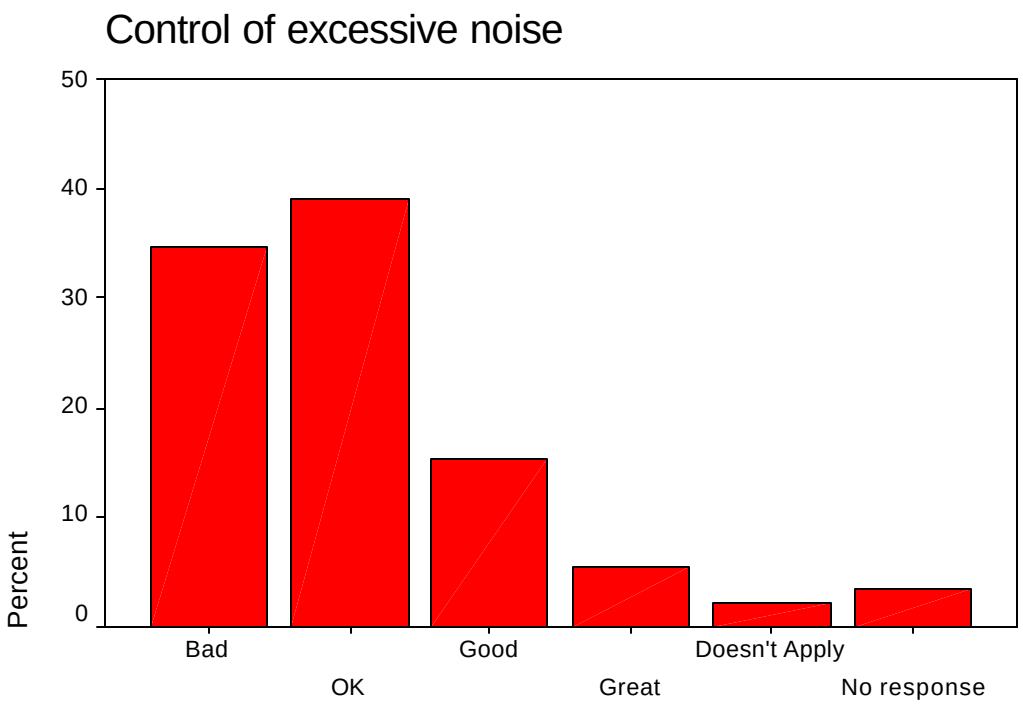
			Bad	OK	Good	Great	Doesn't apply
Streets: South Park (13%)	9	Presence of street lighting (11%)	8.7	37.0	39.1	10.9	3.3
	10	Presence of street trees (4%)	14.1	32.6	37.0	9.8	2.2
	11	Presence of pedestrian crosswalks (8%)	17.4	29.3	28.3	14.0	4.3
	12	Quality of street pavement (9%)	32.6	30.4	28.3	4.3	2.2
	13	Quality and availability of sidewalks (0%)	13.0	38.0	34.8	8.7	0
	14	Availability of on-street parking (5%)	31.5	28.3	27.2	6.5	1.1
	15	Control of street flooding (4%)	27.2	29.3	23.9	6.5	5.4
	16	Control of traffic speeds (21%)	48.9	22.8	16.3	7.6	1.1

Housing scale results according to priorities:

- All three neighborhoods prioritized 'Drinking water quality' the most: 36% in Rainier Valley, 16% in the Central District, and 35% in South Park.
- 'Control of excessive noise' was prioritized at 32% in South Park.

Housing scale results according to perceptions:

- Over 60% of those surveyed in both the Central District and South Park (shown in the graph below) rated 'Control of excessive noise' as 'Bad' or 'OK', whereas more than 65% rated these attributes as 'OK' to 'Good' in Rainier Valley.



SECTION #3, HOUSING RESULTS

			Bad	OK	Good	Great	Doesn't apply
Housing: Central District (12%)	18	Drinking water quality (16%)	13.9	43.5	25.0	10.2	4.6
	19	Control of excessive noise (8%)	20.4	43.5	25.9	5.6	0.9
	20	Ventilation and air quality in your home 10%)	12.0	34.3	30.6	17.6	2.8

			Bad	OK	Good	Great	Doesn't apply
Housing: South Park (8.7%)	18	Drinking water quality (35%)	23.9	30.4	33.7	5.4	3.3
	19	Control of excessive noise (32%)	34.8	39.1	15.2	5.4	2.2
	20	Ventilation and air quality in your home (14%)	21.7	29.3	34.8	4.3	5.4

			Bad	OK	Good	Great	Doesn't apply
Housing: Rainier Valley (12.5%)	18	Drinking water quality (36%)	11.5	33.7	36.5	15.4	1.9
	19	Control of excessive noise (19%)	18.3	37.5	32.7	8.7	1.0
	20	Ventilation and air quality in your home (10%)	7.7	29.8	48.1	10.6	1.9

Conclusions on the Neighborhood Scale:

The study area populations add up to 9, 561 and we surveyed 304 residents. This means that we approached our target of 95% confidence; the results from our sample population adequately represent the perceptions of the population identified in the study areas.

On a majority of the survey questions the results showed that responses lie in the 'OK' and 'Good' scores. This indicates that the services overall are meeting the needs of residents in these areas. The questions that scored lower or higher are where the city can gain the most information about services they can improve upon or maintain.

All three neighborhoods rated 'Convenience to Metro Transit' high, Rainier Valley identifying it as a priority. This means that the transit services that the city is providing is meeting the needs of these residents and the city should continue to provide its high quality of service to these areas. 'Convenience to Parks/Open Space' was also a priority for Rainier Valley and was rated 'Great' or 'Good' by the majority of respondents. These services should continue to be maintained as well.

'Public Safety' was prioritized in all three neighborhoods and scored poorly as 'Bad' or 'OK' in both South Park and Central District; Rainier Valley scoring it as 'OK' or 'Good'. Similarly, all three neighborhoods scored 'Response to property vandalism' as 'Bad' or 'OK'. This is an issue that has been identified as an area where the city should focus its resources to better meet the needs of residents. These comments support the data:

- "Need more community policing. I don't see enough police around, especially at night" – Rainier Valley resident
- "Need police department presence in neighborhood." – South Park resident

'Protection from pollution' was rated as 'Bad' or 'OK' in all three neighborhoods, and was prioritized in South Park. Again this is an attribute that the city can direct services to in order to better meet the needs of these residents. These comments from South Park highlight the concern:

- "Lafarge's cement plume is making us sick. We want the city to continue to support our neighborhood plan!" – South Park resident
- "Clean up the river." – South Park resident

All three areas prioritized neighborhood scale services as being important. This adds emphasis to the concerns addressed above. The city should seriously consider focusing its effort on improving services at this scale.

Conclusions on the Street Scale:

Most survey questions, some of which were prioritized, on the Street Scale were rated 'OK' or 'Good' overall. This indicated that the city is doing fairly well to meet the needs of residents concerning these services and should continue to provide them at current or greater levels. However, there are some neighborhood attributes that appeared in this section that should be addressed.

'Quality of street pavement' and 'Availability of on-street parking' were both perceived poorly and had a significant priority rating in both Central District and South Park. The Department of Transportation could improve its services to the quality of roads and parking in these areas. This is a comment from a Central District resident:

- "Our streets downtown and in the Central Area need more attention."

'Control of traffic speeds' in South Park is a high priority with an overwhelmingly 'Bad' rating. Again the Department of Transportation along with the Seattle Police department could take measures to remedy these concerns. A resident of South Park comments:

- "Traffic speeds are extra bad."

Conclusions on the Housing Scale:

All questions, including those with priority ratings, were scored as 'OK' or 'Good' in this section, the only exception being 'Control of excessive noise' in South Park. This could be due to the high volumes of air traffic they get because of their location near Boeing and the Airport. When attending a community meeting in this neighborhood we received comments that the local

establishments were also a source of frequent noise disturbances. We will speculate as well that the high volumes of traffic are a cause of excessive noise in this area. The city could work with the local establishments through the Police Department, and the Department of Transportation could look at the traffic routes, to alleviate some of these sources of noise.

Limitations:

- Format of Survey; due to confusion over the priorities questions (numbers 8, 17, 21, and 22), a higher non-response rate occurred here than on the other questions.
- Language:
    - Adequately dealt with Hispanic respondents through Spanish language survey, yet could have done more (and achieved a higher response rate) with Spanish speaking surveyors.
    - Various other non-English speakers were encountered and we were unable to survey them without interpretation resources.
- Literacy
- Disability

Recommendations:

In the future when surveying for the environmental equity program we would suggest a couple of things. First, re-examine the method for getting priority ratings for services. The method we chose, where the interviewee would circle the important questions and sections, proved to be confusing and distracting. Also we found great success when we administered the survey at community centers where participants had time to spend on the survey. The store intercept method was time consuming and un-engaging for participants. Consider attending a range of neighborhood meetings to get participants.